plane
# GRUMMAN
news

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# Special report—
# Rozzi reviews work cutback

Last January, following sharp Congressional cuts in space and defense budgets, Grumman Aerospace announced that a review of in-house work projected for 1970 indicated that the work force would have to be reduced unless there was a dramatic upturn in business.

At that time there were approximately 31,700 employees in the Company; employment is about 26,500 now, and there will be no further reductions-in-force this year. A little more than 40 percent of those who left the Company during the year were separated through normal attrition: other jobs, retirement, health, death, etc. (These figures pertain only to Grumman Aerospace Corporation and **do not** include any other subsidiaries of Grumman Corporation.)

According to Vice President Tom Rozzi, director of Security and Personnel Services, lack of business has been the sole reason for the manpower reductions. The reduction-in-force (RIF) was not made because of poor employee performance. If business conditions improve, many of them will be recalled.

Initially, attention was given to the specific job categories that had to be reduced because of lack of work, then, how many employees would be needed for the jobs that remained. Once that question was determined, Rozzi said, a decision was then made as to specific recommendations for termination.

Each person affected by the RIF was reviewed by the department involved, at least twice. If an employee had long-time service, his termination was reviewed by a Corporate officer.

### Review Board

From the beginning, a Termination Review Board was set up to meet once a week to assure a fair and consistent approach toward terminations, Rozzi said. The Board is made up of eight employees representing each of the major functional areas of the Company: Technical Operations, Security and Personnel Services, Program Management, Treasurer/Finance, Operations Planning and Scheduling, and Product Operations.

In addition, the director of Personnel Services said, a real effort was made to determine whether an individual in one area could be placed in an open job slot elsewhere in the department, or the Corporation, or one of its subsidiaries.

### Placement effort

Once it became necessary to terminate a person because of the reduction-in-force, Personnel Development had a 10-day period before termination in which to place him within Grumman Aerospace or any of Grumman Corporation's subsidiaries. If that was not successful, he was provided with a list of job openings in outside companies, further counseling if necessary, information on converting his insurance, and the necessary forms required for unemployment insurance. Once terminated, he had an additional 31 days of coverage for himself and his family under the Grumman hospital, surgical, and major medical plans. Life insurance, except for double coverage on accidental death, is automatically extended for 31 days following termination.

Anyone terminated because of a RIF also received severance pay, based on length of service.

In addition, Rozzi pointed out, it is Company policy that anyone terminated because of the reduction-in-force may appeal the action if he believes he has been treated unfairly. Such appeals are reviewed by representatives of Personnel Relations, Plant 28. An employee may further request a review by a three-man Termination Appeal Board.

"We have tried to be fair and honest," said Rozzi. "We will continue to be as just and objective as we can—and hope that business conditions improve soon in the aerospace industry."

plane GRUMMAN news

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## 'Easy Riders'

The Suffolk Wheelchair Athletic Association is sponsoring a Wheelchair Sports Night at the Suffolk County Community College in Selden, N. Y., on Saturday, November 21, at 7:30 p.m.

The events scheduled include a wheelchair basketball double-header, one game between the Suffolk "Easy Riders" and the Bulova "Watchmakers" from New York City. The second game features the Hofstra "Rolling Dutchmen" and the Eastern Paralyzed Veterans "Chargers." Also on the program will be table tennis contests among nationally ranked wheelchair competitors.

The Suffolk team is less than one year old and is looking for more disabled athletes wishing to compete. To qualify for the team a man or woman must have a disability affecting the use of the legs.

For further information and/or tickets please contact

David Levy, St. Charles Hospital, 473-2800, Ext. 288, or Melanie Levy, 473-1744.

## Back on station

That saucer-shaped rotodome that sits atop Plant 14 may look like the same one that's been up there for some nine years, and it is . . . except that it's functioning a lot better than it did this past summer.

The rotodome is used exclusively for system evaluation of electronic equipment related to the E-2A, E-2B, and next generation E-2C aircraft. When special testing activity showed a deterioration of performance, there was a natural concern about the rotodome, and an investigation began. A close physical examination of the rotodome showed that two inches of water had accumulated in the center bay. No wonder the IFF (Identification, Friend or Foe) detection and the UHF (Ultra-High Frequency) antenna patterns were unreliable!

So the water was removed and the interior was left to dry for about a month. Still problems: Measurements showed the UHF side lobes and the IFF antenna pattern to be defective. Then Bernie Farber, E-2C System Project engineer, decided to remove the sassy saucer from the roof and submit it to fine analysis.

After test evaluation and repair, the rotodome was lifted back up on its perch on Plant 14, sparkling with its fresh coat of paint, and the reports are that all is well again. (Photo by Bob Settles)

## Art, Photography Show set for Nov. 19

Your favorite color prints of the kids last summer, or your water color of a marine scene in Maine, or a nifty little nude in clay: these should be competing in the Grumman Art & Photography Show in Plant 28 November 19 through 22, sponsored by GAA. Color slides are to be pre-judged by today, November 13, at 6 p.m.; otherwise entries of either art (including sculpture) or photography must be submitted at the lunch hours, or from 4:30 to 6 p.m., November 17 and 18, Plant 28.

There will be first, second, and third prizes in each category of art and the same in photography, and two Grand Prizes. Entries must have been completed, or photographed, during the past two years. Number of entries: two in any one division. For more details, call GAA, Ext. 2133. Calverton exhibitors should call Katherine Eng, Ext. 335.

# Space team heads toward date to pick final Shuttle concept

The Grumman/Boeing Space Shuttle study is streaking along toward that December decision when one of the three Space Shuttle concepts now being considered will be selected as the prime contender. That one will be IT. From December to June, Grumman/Boeing and their associates will bend all energies to presenting the National Aeronautics and Space Administration with this single economical, practical Space Shuttle plan.

In the teeth of determined competition from McDonnell Douglas and North American Rockwell, "Grumman/Boeing aims to win," says President Lew Evans. The current Space Shuttle study is a $4 million fixed-price contract. What comes later (detailed design, then the hardware) could amount to the biggest thing in space since Apollo.

Right at the beginning, it was apparent that superiority of design would be of no avail if the design could not be produced at reasonable cost. In fact, "Economy" was the persuasive word that NASA heeded in awarding a Phase A study to Grumman after Phase B contracts had been awarded to two of Grumman's competitors.

### Double duty

So an in-house organization, headed by Howard Wright, was set up to be a combination watch dog and hound dog, sounding the alarm when design ideas threatened to go beyond technology, and seeking out new materials and methods for propulsion system and reusable orbiter. Since the orbiter has to survive something on the order of 2,000° F. on re-entry, and be ready to go into space again, some very exotic materials, heat resistant and light in weight, are being called for.

Wright, who leads the Grumman in-house effort in technology and manufacturing methods, was formerly deputy director of the LM Program. He is now assistant Space Shuttle Program director for Technology, working closely with Vice President Larry Mead, Space Shuttle director. The names of his immediate staff, and their special areas of concern, suggest the breadth of research going into this bold vehicle of the late 1970s:

Artie August, Technology manager; Fred Berger, Aero-thermodynamics/Configuration; Murray Bernstein, Dynamics & Aeroelasticity; Lennie Rothenberg, Propulsion; Walt Ludwig, Structural and Thermal Protection System; Bernie Kram, Human Factors; Art Rossoff, Integrated Electronics; Howard Peck, Operations, Maintenance & Safety; Dick Oman, Research representative.

### Team associates

They are not alone. Seven large, key companies from this country and Europe have associated themselves with the Grumman/Boeing Shuttle team, the latest being Avions Marcel Dassault Company of France, whose contribution will be in research and test work on high temperature alloys, insulation systems, and servo mechanisms.

"General Electric Company is working in the field of integrated avionics," Wright pointed out. "Eastern Airlines is studying operational requirements, Northrop Company provides us with experienced designers and builders of large aircraft structures, and Avco Corporation is working on ablative (heat dissipating) materials for leading edges. Dornier of West Germany is working with us on Shuttle System studies and materials research, and Aerojet General, on large cryogenic fuel tanks."

As the Space Shuttle Program progresses, Grumman will need adequate manufacturing and testing facilities. These are also part of Wright's responsibility. To evaluate insulation concepts, for instance, a facility for extremely cold temperatures will be required—and facilities for testing structural elements. "For these we're surveying facilities around the whole country," Wright said, "including those of our associates."

Grumman's success with boron epoxy composite for the F-14 horizontal stabilizer and titanium for the F-14 wing panels is a decided advantage in designing for weight saving. "There is a possibility of using a lot of titanium—or even aluminum—for sub-structure, with replaceable ablative shields on the leading edges for protection from reentry temperatures," Wright said.

*(Continued on page 5)*

**Material of future.** Panel is cobalt base alloy, HS-25, and represents intersection of four Space Shuttle skin panels subject to searing re-entry heat as well as low temperatures of outer space. Snapped in Advanced Development Lab, Plant 2, are (L to R) Howard Wright, asst, director, Space Shuttle Program; Bob Micich, AD project engineer; Ed Leszak of Material & Processes; Vee Varisio of Structural Systems. (Photo by Nat Scherer)

## Looking ahead

"In the next year or two the demands of the national economy are going to make necessary *very* careful scrutiny of the NASA program and the priorities assigned within it. We are convinced that the technological development which will come from a viable NASA program is a vital national asset. We believe that a workable program must include *both* manned and unmanned undertakings.

"After examining many combinations of possible future programs, it is apparent to us at Grumman that a well-conceived Space Transportation System should have priority among the posssible manned programs. It is a challenge for our industry to determine in a very realistic fashion the resources that will be required."—Senior Vice President Joe Gavin, director of Space Programs.

## About the cover

There have been many strange sights since the space race began back in the late fifties, but one of the strangest of all is this "Super Guppy," a modified Stratocruiser that is used to transport space vehicles and equipment to the Kennedy Space Center. "Whale" might be a more apt name for the aircraft, for when it is in flight it looks like a misplaced denizen of the deep.

When Nat Scherer of Presentations Services snapped the "Super Guppy" last week, it was at Bethpage to pick up the ascent stage of LM-10 for transport to KSC. It is scheduled back on Long Island shortly to haul the LM-10 descent stage to the Cape.

Who said "truth is stranger than fiction?"

R. W. Wittneben, Prototype | W. J. Fichter, E-B Cleaning | K. Bergeman, Plant Mgt. | B. R. Bedell, T/M Meths. Engg. | W. O'Neill, Spotweld | D. R. Burden, Plant Mgt. | C. Remiszewski, Surfs. & Assem. | S. A. Megna, Inspection | D. E. Lowman, QC Engineering

# Nineteen celebrating Silver Anniversaries in November

Can it be? Can it possibly be? These three are completing 40 years with Grumman in November:

Senior Vice President Dick Hutton, with Permanent Number 21, and, with Numbers 22 and 23, Ben Gambee of Inspection/Quality Control Administration, Plant 77, Stuart, and Bill Galbraith, Subcontract Management, Plant 15.

Fiftten men mark 30 years with the Company in November:

**PLANT 1:** Fred J. Zeisner Jr., foreman, and Charles V. Krajci, both Instrument Test.

**PLANT 2:** Theodore R. Schumacher, Alodine; Anthony G. Budesheim, Controls; Marvin E. Wolverton, Tanks & Ducts; Joseph Mystkowski, Tool Fabrication Management.

**PLANT 4:** Arthur Blaile, Production Control - Records & Release.

**PLANT 5:** William L. Roth, Final Assembly; Arthur Slanar and Ernest Alto, both Surfaces & Assembly.

**PLANT 7:** Marcel Blaile, Electronic Flight Development Operations.

**PLANT 17:** Vincent W. Fabiano, Spares Material Consolidation.

**PLANT 34:** Kenneth G. Dittrich, P/S Structural Mechanical Engineering Design.

**PLANT 36:** Henry K. MacDonald, T/M Methods Engineering Tool Design Mfg. Liaison Sub. Con.

The 19 who are joining the Quarter Century Club this month may recall some mixed feelings about the period of readjustment in plane production just after World War II. Grumman went on a restricted hiring program after the post-war general layoff, and one of the consequences was a disappearance of women from the production line. Plane News asked shop men at that time what they missed most about having no more women in the shop. Some answers:

"Their engaging chatter." "Heck, mister, the sweaters and slacks, of course." "Frankly, the men work better now—not so many distractions." "At some jobs they were better than men." "They wanted all the equality of men, but they'd cry if you bawled them out, and cry if you praised 'em." "Honest, I don't miss 'em at all."

Although the girls never did come back to riveting, they are heavy contributors now in many new and diverse areas of the Company. Even the pants are coming back!

Celebrating Silver Anniversaries are:

**PLANT 1:** Raymond W. Wittneben Jr., Prototype.

**PLANT 2:** William J. Fichter, Electron Beam Cleaning & Finishing; Katherine Bergeman, Plant Management & Staff; Bert R. Bedell, T/M Methods Engineering Tool Des. A/C.

R. A. Boddy, Tool Fab. | R. S. Mullaney, F-14 Proj. Mgt. | L. M. Walley, Material Control | W. Haegele, P/S Tech. Serv.

R. E. Witte, Proj. Engg. Space | V. R. Milligan, Wire | A. Haberstroh, Inspection | C. Casella, Prod. Engg.

**PLANT 3:** William O'Neill, Spotweld; Weston M. Carroll, Fuselage Assembly.

**PLANT 4:** Donald R. Burden, Plant Management & Staff.

**PLANT 5:** Charles Remiszewski, Surfaces & Assembly; Sarah A. Megna, Inspection - Aerospace Assembly.

**PLANT 6:** Donald E. Lowman, QC Quality Engineering (nights).

**PLANT 11:** Richard A. Boddy, foreman, Tool Fabrication - Plastic Tools.

**PLANT 15:** Robert S. Mullaney, F-14 Project manager for Operations.

**PLANT 24:** Lewis M. Walley, Critical Material Control Administration.

**PLANT 25:** Win Haegele, P/S Technical Services; Reynold E. Witte, Project Engineering - Development Space.

**PLANT 33:** Victor R. Milligan, Wire.

**PLANT 36:** Charles Sokol, Fuselage Minor; Arthur E. Haberstroh, Inspection - Mechanical.

**PLANT 77:** Charles Casella, Production Engineering, Stuart.

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Two women and 18 men are celebrating 20 years:

**PLANT 2:** Frank J. Cocchiola, Out of Production Spares; Robert Swanda, Intra-Plant Transportation; Gordon E. Baylis, Tool Fabrication - Status/Tool Control; Antoinette Wagenknecht, T/M Methods Engineering Tool Design.

**PLANT 4:** Anthony F. Pecora, Production Control - Records & Release.

**PLANT 5:** John D. Walters, Test Control Equipment; Gordon M. Campbell, Instrument Project & Staff.

**PLANT 6:** Charles E. Benjamin, Instrument Test; Kenneth M. Mains, Avionics Management & Staff; George W. Fleenor, Facilities Maintenance.

**PLANT 7:** Harry Bowie, Airport Operations; Earle A. Barney Jr., Inspection - Mechanical.

**PLANT 17:** Armando Nicoli, B/P & Off-Site Warehouses.

**PLANT 20:** David Collins, Transportation - Operations.

**PLANT 21:** Francis Noonan, B/P & Off-Site Warehouses.

**PLANT 25:** Robert G. Rouse Jr., Engineering Administration.

**PLANT 30:** Earl W. Albright, Engineering Equipment.

**PLANT 33:** Emanuel Quaresimo, Avionics Assembly.

**PLANT 35:** Henrietta A. Keveney, Weight Analysis.

**PLANT 55:** Gordon J. Kraft, Final Assembly.

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Two women and 59 men are completing fifteen years with Grumman:

**PLANT 1:** Nicholas P. Apicella and George Rottner, Fuselage Sub-Assembly; Warren A. Unneberg and George E. Kaese, Pre Flight; Thomas E. O'Brien, Material Project Management; Charles E. Glynn, Crew & Equipment Integration; Paul E. Divan Jr., Vehicle Drafting; Myles S. Cosgrove, Standards.

**PLANT 2:** Vincent G. Stano, Steel Parts Assembly; Anthony J. Parrella, Final Assembly; Mary E. Harse, Production Administration; John Cahill, Production Control - Parts Control/Major; Edward G. Clark and Pierce J. McCarthy, T/M Methods Engineering - Aircraft Production Program; Benjamin Dombrowski, Tool Fabrication - Metal Form Tool; Joseph M. Amodeo, T/M Methods Engineering, Tool Design/AC.

**PLANT 3:** Santo Maddalena, Machine Shop; Raymond Bromm, Maintenance - Rearrangement.

**PLANT 4:** William A. Winslow, Final Assembly; Herbert Smith, Flight Transportation.

**PLANT 5:** Harry V. Bayer and Ralph M. Johannessen, Environmental Control; Joseph C. Ranfone Jr., T/M Methods Engineering - Space Program; Richard H. Harrison, Repair Control; John E. Kasin Jr., Maintenance - Rearrangement; James A. Green, Maintenance - Facility Equipment & Gen.; Stephen C. Wright, Crew & Equipment Integration; Raymond P. Seibert, Inspection - Aerospace Assembly.

**PLANT 6:** John L. Kerlo, Instrument Test; John E. Condon, Power Plant; Raymond F. Shea, Avionics Instrument; Harry Themann, P/S Verif. & Product Support.

**PLANT 7:** Joseph W. Goodwin, Flight Avionics; Thomas Smith, Flight Development/Operations.

*(Continued on page 6)*

## Vet visits

The loneliest place at Christmas is a hospital bed far from home and family. To cheer up Vietnam servicemen at one of the military hospitals, two young ladies from the Navy Office in Plant 35, Jo Grimaldi and Elaine Montaperto, have arranged to visit before the holidays with some gifts from Grumman and the Navy Office personnel. December 11 is deadline date.

You can help. ESO has placed boxes in lobbies and cafeterias. Some suggested gifts are games of chess, Chinese checkers, "Stocks & Bonds," cribbage boards, playing cards, paint-by-number sets, intricate hobby kits, toiletries, ties, shirts, robes. For information, call Jo on Ext. 1334.

# Wide range of 'space' products on display at AIAA meeting

The two Soviet cosmonauts who set the world record of 18 days in space gave papers at the seventh annual meeting of the American Institute of Aeronautics and Astronautics in Houston recently—and spent considerable time looking over the Grumman exhibit.

Maj. Gen. Andrian G. Nikolayev, commander of the spacecraft Soyuz 9, and Vitali I. Sevastyanov, flight engineer, "seemed extremely interested in some items we displayed," said Ozzie Williams, manager of Space Vehicle Development. "I guess the boron-epoxy stabilizer for the F-14, the Extra-Systemic Organ Transporter, and the Mobile Intensive Care Operating Table were the things that interested them greatly."

Ozzie went on to comment, though, that the cosmonauts "took time to see just about everything" in the exhibit, which featured the Space Shuttle, modern aircraft technology, and Earth Resources. And there were "cluster" exhibits devoted to astronomy, transportation, Apollo, and life support.

Senior Vice Presidents Joe Gavin, Grant Hedrick, and Dick Hutton were at the show, along with Vice President Ralph Tripp, director of the Lunar Module Program, and Vice President Larry Mead, who's heading Grumman's Space Shuttle Program.

"The overall impression was that though total attendance was lower than expected, the Grumman exhibits were of high quality," said Ozzie.

## Short shots

The Honorable George Bush of Texas, supporting NASA's quest for funds, stood up in the House of Representatives and cited space spinoffs that had been described in the Christian Science Monitor and in Grumman Plane News. He had both of these articles read into the Congressional Record for Sept. 22, 1970.

The Grumman story concerns ESOT, the Extra-Systemic Organ Transporter developed at the Grumman Houston Facility for Baylor University College of Medicine. "Grumman provided this design as a demonstration of application of space technology to medical uses, at no cost to the Baylor medical group," Senior Vice President Joe Gavin, director of Space Programs, was quoted as saying in the Plane News interview.

Some days every letter you open isn't just another bill. Ask Vice President Ed Dalva. He broke into a smile recently when he received a note from General Motors that had nice things to say about one of Ed's Field Service representatives. "The General Motors Air Transport Section," said John F. Allan, manager of ground operations, "wishes to express its appreciation to Grumman for the dedication, ingenuity and talents of your Mr. Frank Barker. He has supported our operation and the Grumman II admirably. . . . 'Way to go, Frank!

If there's anybody in the crowd who can remember Joe Penner's famous line, "Anybody wanna buy a duck?," might well remember another "Duck" of the same vintage, the Grumman J2F. It came off the drawing boards in the early thirties and was produced soon after. That's a long time ago, but there's one Duck (and the only one, so it's reported) that's still sassy enough to be hitting the airways. After a complete refurbishing, it was on display at an open house at the Torrance Municipal Airport last month. But alas, it too is scheduled to have its wings clipped. The J2F will soon go on permanent display at a museum at the Orange County Airport in California.

Got tickets to the Army-Navy game in Philly November 28 but dread making the trip? There's a man at LILCO who may be able to help you out. He's got a bus, the Campus Coach type, that's leaving Hicksville the morning of the big game, with return set for that night. And there's some room available—at $5 a head. If that sounds like the ticket for you, give him a call on WE 1-6300, Ext. 340.

## Phone tips

Here's a tip on toll calls. Please make a note in your Grumman telephone directory.

Because of a 40-60 percent increase in person to person calling rates, toll calls should be made station to station, according to the Communications office. Only if you anticipate difficulty in reaching your party, or if previous calls have resulted in excessive waiting time should you make your call person to person.

**Station to station**

Dial 50
Wait for second dial tone
Dial area code
Dial seven digit number

**Person to person**

Dial 50
Wait for second dial tone
Dial zero
Dial area code
Dial seven-digit number

When the Bell System operator comes on the line, give her the name of the party being called

**Sterling tie-line**

You can now call Plant 58, Sterling, Va., directly on Ext. 87500 or 86500 from any Grumman extension in Bethpage, Syosset, Garden City, or Wyandanch. This service will greatly reduce the number of calls previously placed on 55.

**AIAA at Houston.** The two Soviet cosmonauts who set the world record for space flight—18 days—showed high interest in the many manufacturing and design pieces in the Grumman exhibit. Here they're inspecting with Ozzie Williams (L) some of the advanced honeycomb work done in the Company.

# Big decision ahead for Shuttle team

*(Continued from page 3)*

"But the problems don't stop there. The new Shuttle concepts require use of liquid oxygen and liquid hydrogen as the fuel for the main engines, so at minus 423° F., the storage problem becomes a major one. Without adequate insulation systems, gases would freeze and form thick layers of ice on the outside of tanks. Extreme cold inside, and very hot temperatures outside present extremely difficult design problems because of the thermal gradients that will exist within the structural system."

One of several metals now being tested in Plant 2 is called Haynes 188, a new alloy "good for very high temperatures, but difficult to drill," according to Wright. It can, however, be welded with the right kind of welding currents. The simulation of re-entry heating cycles to 1800° F. is being carried out at Plant 5 as part of the test program under the direction of Bob Micich, Advance Design, and Vee Varisio of Structural Design.

Such are some of the challenges being investigated by the experts. Much has been proven in a short time in the Plant 2 Electron Beam Welding and Titanium Forming Facility, and more is to come. "We're now working in our Research Department and with several associate companies on some extremely proprietary materials that will almost surely be used on a Shuttle vehicle," says Wright. "These materials, when they are perfected, could almost double the payload capacity of our Space Shuttle orbiter craft."

## Exploring oceans

Walter Scott, who retired recently as director of Grumman Ocean Systems, has, with his wife, Frances, written a book entitled "Exploring Ocean Frontiers: a Background Book on Who Owns the Seas." It is one of a series for young people published by Parents' Magazine Press and is recommended for ages 12 and up. Dr. Jacques Piccard has written the introduction.

# Appoint Stalk to Contracts post as assistant director for Space

Joe Stalk, former director of Finance for Space, got a new title last week but his primary responsibility is still in the realm of space programs.

Stalk was named assistant director of Contracts - Space Programs by Administrative Vice President John O'Brien with responsibility "for all contract matters on Space Programs."

Joe Stalk

Stalk has been with Grumman about 7½ years, first as deputy manager of Operations Planning and Budgets. In 1966, he moved over to the LM Program as manager of budgets and schedules, about two years later was appointed deputy director of Finance - Space Programs, then director of that effort. His responsibilities covered contracts, cost analysis, and program plans and controls.

According to the announcement by O'Brien, Stalk will report functionally to Rolf Larson, director of Contracts, on all matters pertaining to contracts for space. In addition, he "will retain his present duties and responsibilities, and will continue to report to Joseph G. Gavin Jr., Senior Vice President."

Joe holds a Bachelor's and Master's degree in management and has been involved in corporate finance for the past 20 years. He had worked for the Hamilton Standard Division of United Aircraft, on the president's staff, and as general manager of LaPointe Industries in Connecticut before coming to the Company.

Stalk still calls Connecticut home. He lives with his wife, Marion, in Greenwich. They have one son, who is in the Navy, and one daughter, who is in high school.

# Brief Japanese on E-2

**International pow-wow.** Just prior to flight in an E-2 Hawkeye, Lt. Cols. Yuichi Shirai (2nd L) and Shuichi Hayasaka (2nd R), prep with Pete Tyer, Flight Test; pilot Jim Philbin; and Armand Biava, Flight Test.

Japanese defense officials are concentrating on the Grumman E-2 Hawkeye in their search to provide a solution to Japan's need for an Airborne Early Warning and Control system.

The Japanese have been assessing and updating their air defense capability for some time and, during the past decade, the Hawkeye was clearly a candidate for filling the early-warning job. Recently their interest in the aircraft grew markedly—to the extent that a five-man survey team headed by the chief of the communications and electronics section of the Japanese Air Staff spent most of a month in this country, discussing Hawkeye and other applicable equipment.

According to Grumman International, this was the largest and most prestigious group of Japanese representatives ever hosted by the U.S. Navy on the E-2. The Japanese visited the Navy at Washington, D.C. and North Island NAS, where they few in the Hawkeye.

Dr. Tom Cheatham, President of Grumman International, expressed the hope that the Japanese would buy between 15 and 20 Hawkeyes.

The first day of briefing was kicked off by Cheatham, Senior Vice President Bill Zarkowsky of Grumman Aerospace Corporation, and a flock of people with expertise in E-2 systems operations. Then, the formalities over, the many days of briefing began—briefings that included flights in the E-2.

Cheatham, Dick Anderson, E-2 Systems engineer, and Art Heiniman and Owen Carr, both of Grumman International, have followed up the activity with a trip to Japan.

# CALENDAR of events

Notice of events for period Nov. 13 - Nov. 30 should reach Plane News by Tues., Nov. 17.

**Amateur Radio Club:** Wed., Nov. 18, at the WA2LQO shack on the roof of Plt. 5, elec. of '71 ofcrs. Emmett Goodman, Ext. 87125.

**Amer. Soc. for Metals:** Wed., Nov. 18, Milleridge Inn, Rte. 106, Jericho, LI Chap., cocktails, 5:30 p.m., dinner, 6:30 p.m., mtg., 8 p.m., spkr. Dr. Raymond Davis Jr., Brookhaven Nat'l. Lab. on "What Have We Learned from the Apollo Flts.", $5.25 for dinner, mtg. attendees welcome. Joel Greenspan, Ext. 7351.

**Amer. Weld. Soc.:** Wed., Nov. 18, 6:15 p.m., Milleridge Inn, Rte. 106, Jericho, joint ASM-AWS mtg., spkr. Dr. Raymond Davis Jr., Brookhaven Nat'l. Lab. on "What Have We Learned from the Apollo Flts." John Platania, Ext. 2021.

**Aquatic Assoc.:** Tues., 7:30-9 p.m., Larkfield Suburban Club, $15 members, $25 non-members, 12 wk. prog.; gen. mtg. 9 p.m., Tues., Nov. 17. John Reeves, Ext. 2002.

**Chess Club:** Tuesdays, 5 p.m., Plt. 3 Cafe., tournament, games. Alex. Ikonnikow, Ext. 7592.

**Coin Club:** Wednesdays, 12:05-12:50, Plant 25 Vendor Conf.. Rms., buy, sell, swap or just show. Ken Hale, Ext. 1936.

**Duplicate Bridge Club:** Thursdays, 5:45 p.m., Plant 3 Cafe. Reserv. not req. Partnerships arranged. Pete Harrington, Ext. 1812.

**Ex-Servicemen's Club:** First Mon. of month, 7:30 p.m., Plant 28 audit., exec. & gen. mtg. Pete Volpe, Ext. 84754.

**Fencing Club:** Fridays, 5 p.m., Plant 30 Cafe., competitive fencing & instruct. Joe Campisi, Ext. 1134.

**Flying Club:** Fri., Dec. 4, Plt. 28 audit., reg. mtg. Mal Gerry, Ext. 1396.

**GAA Leather Craft Club:** Wed., Nov. 25, 5-6:30 p.m., Plt. 28 audit., instruct. in leathercraft & new ideas & techniques. Fut. mtg. first & third Wed. of month. Cy Dotz, Ext. 86828.

**Horseback Rid. Club:** Sundays, 11 a.m., By-Ways Stables, Huntington, Eng. rid. lessons avail., Donna, Ext. 86214. Meets 1st Thurs. of month, Plt. 28, 5:30 p.m Caren Carlsen, Ext. 2725.

**L.I.L.I. Ind. Nurses Assoc.:** Thurs., Nov. 20, 8 p.m., Plt. 28 audit., spkr. Alfred Aronson, M.D., asst. prof. Medicine, Cornell U. Medical Coll., on "Cardiac in Industry." Mary Gise, Ext. 3723.

**Research Lecture Series:** Thurs., Nov. 19, 4 p.m., Conf. Rms. 1A-1B, Plt. 35, Metro. area, spkr. Dr. George Veronis, Dept. of Geology, Yale U. on "Use of Sea Water Properties for Deducing Ocean Currents." Jim Compton, Ext. 2165.

**Retiree Club:** Wed., Nov. 25, 1:30 p.m., Holiday Manor, bus. mtg. & elec. of ofcrs. GAA, Ext. 2133.

**Soccer Club:** Sun., Nov. 15, 12:30 Reserves vs Lindenhurst, Brookwood Hall, E. Islip, 2:30 p.m., Premier team vs Mineola at Jackson Ave. Schl., Mineola, Sun., Nov. 22, 12:30 p.m., Reserves vs Lynbrook at Grumman, Plt. 3 field, 2:30 p.m., Premier team vs E. Meadow at Plt. 3 field:league & cup games. Karl Herrnkind, Ext. 85141.

**Stamp Club:** (Bethpage) First 3 Wednesdays of month, 5 p.m., Plt. 30 Cafe, swapping, circuit bk. sales, auctions. Marty Harow, Ext. 9172.

**Wgt. Watchers Club:** Tues., 5:15 p.m., Plt. 28 Lobby. Joann Alvarez, Ext. 2171.

# Nineteen celebrating silver anniversaries

*(Continued from page 4)*

**PLANT 12:** Charles W. Sherron, Instrument Fabrication Repair; Forest W. Truland, Specifications.

**PLANT 15:** Arthur H. Huber, P/S Verif. & Product Support; Daniel Baffo Jr., Employee Services.

**PLANT 18:** Jacob A. Vogeney, Plant Protection.

**PLANT 25:** Charles C. Clanton, Schedules & Status; Richard J. Basak, Crew & Equipment Integration; Richard G. MacLeod, Consulting Pilots.

**PLANT 30:** William E. Smiddy, Engineering Electrical; Peter R. Walters, Materials Accounting.

**PLANT 34:** Richard G. Anderson, Project Engineering - Development Aircraft; James B. Scanlon, P/S Field Service Management.

**PLANT 35:** Bertel Seberg, Environmental Control Design; Alton S. Kelsey Jr., Structural Mechanics.

**PLANT 36:** Carmino Grella, Surfaces & Assembly; Anthony Scipione, Plant Stores & Distribution; Raymond E. Rogger, Machined Parts.

**PLANT 39:** Charles W. Patterson, Manufacturing Test Group.

**PLANT 41:** Jean T. Beacorn, GDS Executive; Nicholas P. Avery, Systems Marketing.

**PLANT 55:** Howard O. Sandbeck, Technical.

**PLANT 77:** David B. Seeman, Projects - Aircraft; Werner Bols and Clifford C. Fenwick, Production Engineering, Stuart.

**PLANT 83:** Henry Steier Jr., Logistics, KSC.

**PLANT 88:** Frank J. Palermo, Flight Test, Point Mugu.

**PLANT 89:** Arnie D. Alvar, Subcontract Management, Bloomfield, Conn.

# Third group participating in Masters Fellows program

The third group to embark on the two-year Grumman Engineering Masters Fellowship program is now deep into its work-study effort.

Eighteen people, 11 of whom were drawn from the Company's ranks, work a minimum of three days a week during the regular college year and a full 40 hours per week during the summer. Each Fellow carries a half-semester study load, allowing him to earn a Master's degree in two academic years.

Normally, a Fellow is exposed to one specific work-assignment discipline in each of the four college semesters. In that way, each Fellow broadens his technical horizons while he also gets a better grasp of Grumman policies and activities. On occasion, a Fellow may pursue a single discipline through the two-year period because of his special interest.

"The primary aim of the program," says Ed Williams, who directs the program, "is to give outstanding people a chance to do creative design work, as opposed to pure analysis and research. The heart of the program, in the final sense, is creative design **plus** knowledge of the shops so that the two aspects are wedded harmoniously."

How do you get to be a Fellow? Outstanding employees are nominated by their section chiefs and, 30 semi-finalists are selected for screening by the Fellowship Recommendation Committee. The Committee is made up of one representative from each major technical area; it interviews the nominees and sends its suggestions to the Fellowship Committee. That Committee—Chairman of the Board Clint Towl, President Lew Evans, and Chairman of the Executive Committee Bill Schwendler—makes the final determination.

The new college grads are similarly screened, and are judged primarily on the basis of scholarship, work interest, and over-all compatibility with Grumman's engineering activities.

Selected from Grumman to participate in the Fellowship Program with the third group are: Bob Solomon, Navigation and Controls; Don Foos, Flight Acceptance; Joe Rivera, Structural Systems; Glenn Spacht, Aero Test; Chris Seitz, Structural Systems; Carlos Paez, Structural Systems; John Flynn, Environmental Test; Vito Simone, Structural Systems; Fred Neuscheler, Manufacturing Engineering; Joe Vitale, Computer Engineering; Bill Jorch, Computer Engineering.

Recent graduates chosen to participate in the program are: Ken Shachmut, Princeton (former Grumman scholar); Joe O'Toole, Brooklyn Poly; Bob Schenck, Cornell (former Grumman scholar); Don Andreasen, Michigan; Joe Palmieri, Syracuse; John Morse, Clarkson Institute of Technology; Don Brown, Cooper Union.

## Bus routes

How many times have you wanted to tell a bus driver where to go? Well, your time has come. Not only can you tell him where to go, you can tell him where to get off, too.

A bi-county bus plan was announced at a press conference held at C. W. Post College to encourage the use of mass transportation on Long Island. And as a result of an overall transportation improvement plan that has been under consideration for several years, the Bus Service Information Center was formed with Lud Lazlier as director. BSIC went into operation on October 8 with a staff of 12 to 15 people who will record preferred bus routes and pick-up times based on your phone calls. Time tables developed from the study will be printed by the bus companies with the eventual goal being standardized scheduling throughout both counties.

Alhough Federal, state, and county governments are sponsoring BSIC, 90 percent of the funding comes from Federal and state levels.

### Favor plan

While no formal commitment has been obtained, the Nassau County Bus Council gives strong indication that is is in favor of the plan, and discussions with Suffolk officials are very encouraging, said Andrew Schiavone of the State Department of Transportation.

If you live in Nassau County, the number to call is 626-3000 and for natives of Suffolk County, in the Huntington area, 427-5085; Babylon area, 587-5776; Central Islip, 234-2780; and Yaphank, 924-4566.

So start thinking of potential bus routes and ways to improve transportation on Long Island. Your phone call may be the one responsible for pointing a bus in the right direction.

**On their way.** The third group of Masters Fellows gathers before starting a two-year work-study program. Vice President George Skuria (7th L) gave Fellows words of encouragement. (Photo by Jim Wagner)

# NASA names scientists to head study teams

Research scientists have been chosen by the National Aeronautics and Space Administration to conduct studies which may lead to two outer space research experiments. If selected, the experiments will be carried aboard NASA's proposed High Energy Astronomy Observatory (HEAO) in the mid 1970s. They are designed to provide scientists with increased knowledge of the mechanisms of energy productions and transfer in space.

Grumman has a $250,000 contract for a Phase B study of HEAO, an unmanned orbiting observatory 30 feet long and 10 feet in diameter. Frank Canning is program manager and John Purcell, assistant program manager, and Bob Papsco, Engineering manager.

The first proposed experiment, planned for 1975, involves a concentrated effort to learn more about gamma rays, a high energy form of electromagnetic radiation, from above the atmosphere. Directing the gamma ray experiment team are Nobel Laureate Dr. Robert Hofstadter of Stanford University and Dr. Carl Fichtel of NASA's Goddard Space Flight Center in Greenbelt, Md. Tony Favale of Grumman's Nuclear and Radiation Physics section is responsible for direction of the over-all effort at Grumman. Dr. Michael Sommer, well known physicist of the Max Planck Institute in Munich, West Germany, is a co-investigator.

The team hopes to discover the origin of gamma rays, expects to be able to search the heavers for star "explosions," and to obtain data on the mysterious "pulsars," sources of energy about which astronomers know very little.

The second proposed experiment will provide a "superconducting magnetic spectrometer package" for the same HEAO flight in 1975. Nobel Laureate Dr. Luis Alvarez of the University of California-Berkeley is directing this. His co-investigators are Dr. Richard Kurtz of NASA's Manned Spacecraft Center at Houston, and Tony Favale.

This experiment is to measure the intensity and spectrum of electrons and positrons in space; to search the cosmic rays for anti-nuclei (implying the possible existence of anti-galaxies); and to measure chemical element content of cosmic rays. It would require a super conducting magnet at almost absolute zero that could tell the difference between particles and anti-particles.

In addition to the scientific effort, Grumman will be responsible for the engineering design and assembly of the gamma ray package, and for the engineering part of the magnetic spectrometer package. Dr. Robert Madey of Grumman Advanced Space Systems will be project engineer in these activities.

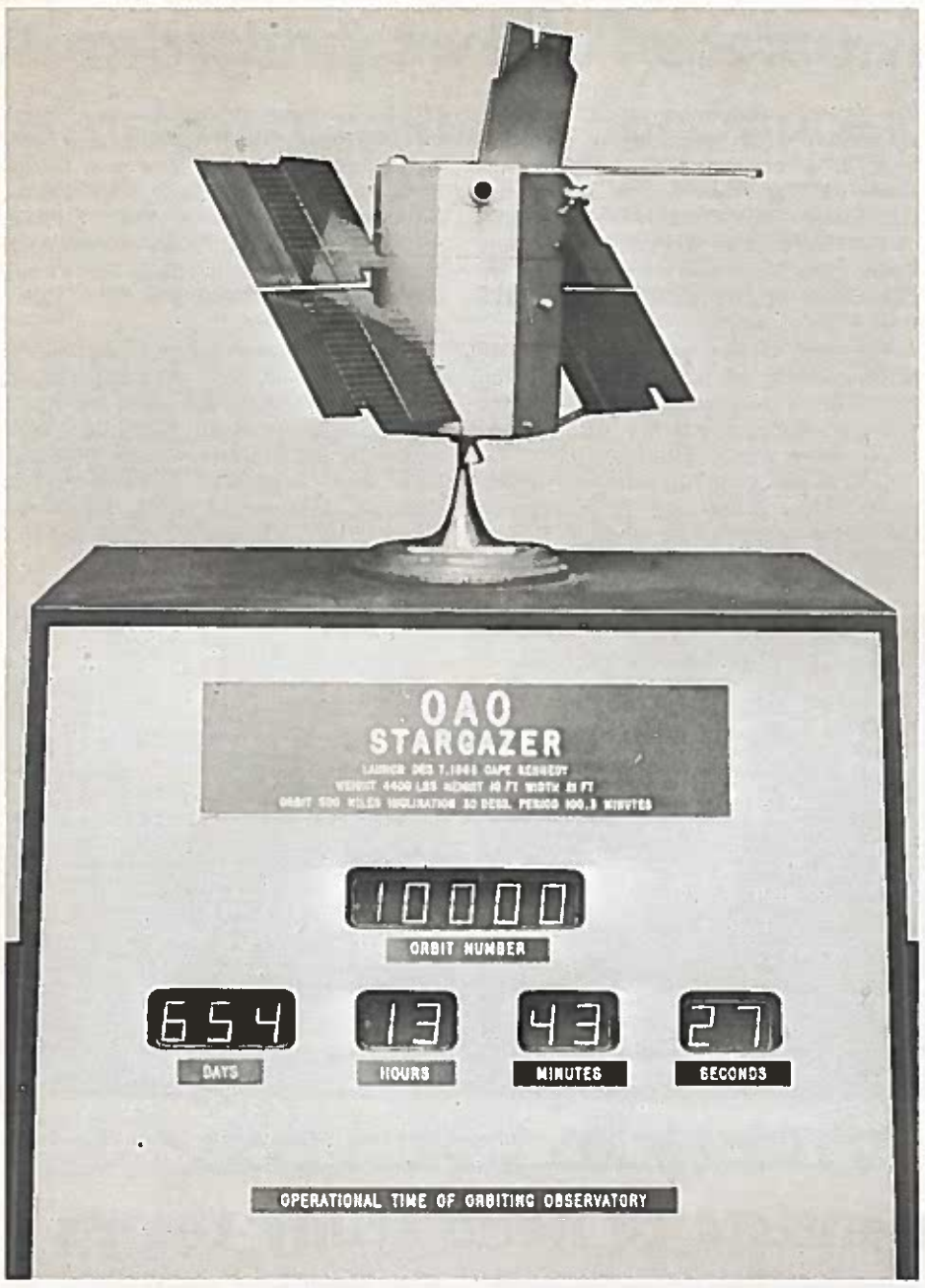
The Phase B definition study by Grumman is being conducted for the Marshall Space Flight Center.

## STOP, if you want to get off . . .

Latest news from the STOP Paperwork front is that the pick-up boxes are gulping in unwanted paper at the rate of 656,812 pages of documentation annually. That's going to save a lot of printing, distributing, filing, piling, and passing around.

A word of caution from Bruce Tuttle, who is heading the Tiger Team responsible for Grumman's STOP Paperwork drive: "Do not place **classified** documents in the pick-up boxes! If you want to remove yourself from distribution of such documents, fill out a STOP coupon with your name and department and add the words, 'Pick up classified document.' A STOP program member will then pick up the document at your desk."

The Grumman contingent at Kennedy Space Center had a Paper Purge Day on October 30, with everybody disposing of unnecessary paperwork to set the program rolling there.




**The big click.** **Monitor in Plant 25 lobby keeps tabs on progress of the Orbiting Astronomical Observatory, Grumman/NASA's OAO-2. Photographer Nat Scherer recorded triumphant 10,000th orbit on Nov. 2.**

# Third-quarter report shows lag in sales

On Monday, November 9, Grumman Corporation released sales and earnings figures for the nine-month period ending September 20, 1970. Sales and other income is listed at $731,323,680, compared to $900,709,961 in the same period in 1969.

Other figures released were:

| | 1970 | 1969 |
|---|---|---|
| Income before taxes | $ 28,709,803 | $ 35,463,772 |
| Provision for Federal income taxes | 13,300,000 | 18,000,000 |
| Earnings per share | $2.21 | $2.42 |
| Backlog | $985,000,000 | $965,000,000 |

The backlog shown at September 30, 1970 includes orders not yet funded of approximately $128,000,000 as compared to unfunded orders of $268,000,000 at September 30, 1969. The backlog for each period includes orders under negotiation only to the extent funded.

# OBITUARIES

**Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.**

OGBURN VAN VELSOR died October 30 at the age of 59. He was supervisor, Supply Operations Provisioning, Plant 30, and had been with Grumman for 29 years. His home was at 3092 Eastern Pkway., Baldwin.

WALTER S. KEAYS of Electronics Test, Plant 7, died October 31 at the age of 43. He had been with Grumman since 1949, and he lived at 40 Valentine Rd., Shoreham.

FORREST W. VAIL JR. of Flight Avionics, Plant 8, died October 31. He had been with the Company eight years and lived on Middle Road, RFD 2, Riverhead. He was 37 years old.

JAMES A. KEEFE of Electrical Design, Plant 36, died November 3 at the age of 56. He had been with Grumman since 1965 and lived at 198 Cushing Ave., Williston Park.

# Here and there . . .

S-O-A-R spells Shuttle Orbital Applications And Requirements, and Grumman is engaged in a competitive Request for Proposal, to be submitted to NASA's Marshall Space Flight Center November 23. General Electric is teamed with Grumman on the SOAR proposal.

This has to do with the Space Shuttle for which Grumman has a major effort underway to become the NASA Space Shuttle contractor. SOAR includes a study of a manned support module, a small living quarters for a crew of four. This module, says Saul Ferdman, director of Advanced Space Programs, could either remain in the cargo bay of the Space Shuttle orbiter, or be attached to a free-flying experiment that would orbit the earth independently.

The cargo bay of the Shuttle orbiter, he pojnts out, is 15 x 60 feet—large enough to accommodate the module and its crew of four with room to spare.

Overall object of the new study, Ferdman said, is to provide total mission descriptions, define new required flight hardware, systems interfaces, costs and schedules, support requirements, and integration and prelaunch schedules for seleted Space Shuttle payload combinations.

John Mockovciak and Art Bertapelle are leading the proposal effort.

An award from NASA is expected before the end of the year, Ferdman said.

## Help for POWs

The people of Grumman are continuing to write Airgrams addressed to the Hanoi government in an effort to pressure that government to abide by the Geneva Convention of 1957, which it signed, in its treatment of prisoners of war.

Coordinators Muriel Leighton and Jim McEnaney report that 15,000 Airgrams — 5,000 more than originally ordered — have been pre-addressed by volunteers. They indicate that the Airgrams will be on hand, according to need. Just ask Muriel (Ext. 3365) or Jim (Ext. 3950) for them. Each Airgram costs only 13 cents and all you have to do is write your message in your own way. As an aid, model letters are available —just to give you an idea of how to write one.

A lot of the action in the POW-MIA drive is being generated in the south. A couple wives of Grummanites—Carol Taylor and Annamarie Nizol—are heavily involved, and Mrs. Taylor was presented with the Award of Merit by a Veterans of Foreign Wars post in Houston for her effort in helping to get signatures on a petition in behalf of American POWs. The VFW post sent the petition to Paris, where U. S.-North Vietnam peace talks are going on.

When you realize that more than 1,550 Americans are in prisoner-of-war camps, or missing in action, and that Hanoi has failed to release but fragmentary information about their fate, well, that is more than reason to complain, vociferously, and to turn up the heat on Hanoi.

Even if you've already written, do it again. If there ever was a good cause, this is it!

## Praise LM team

Owen Morris, Lunar Module Program manager for NASA, saluted the Grumman LM-10 team recently in a letter to Vice President Ralph Tripp.

"I would like to say thanks for a job exceedingly well done," Morris told Tripp, LM Program director. "The incorporation of all of the changes required due to the big tanks and extended mission duration have been incorporated into the LM program with a thoroughness that will insure an excellent performance of the vehicle.

"To have accomplished this work with such close compliance with cost and schedule forecasts is truly outstanding. . . . "

## Big meal on tap

Gourmets and gourmands — here's your chance!

A pre-Thanksgiving Day dinner will be served in all Grumman cafeterias and buffeterias on Thursday, November 19. For those on night shift, the dinners will be served at the Plant 5 cafeteria and the Plant 2, 6, and 7 buffeterias.

It's an eater's menu: turkey with stuffing and cranberry sauce; apple cider; candied sweet potatoes; creamed onions and green peas; apple, mince, or pumpkin pie; and either coffee or tea.

How about that! And all for just 95 cents! You can't beat that . . . you couldn't have beaten that even in "the good old days."

# Design for survival

If an escape system is supposed to save lives, does it make sense to risk lives perfecting it?

That thought or something very close to it prompted the development of what is now common throughout the aircraft industry: the use of scientifically structured dummies. These life-like dummies contain instruments that record and read out what happens, say, in the course of a seat ejection test when a flyer can be rocketed out of the cockpit at a speed of 600 knots.

Armond Aronne of Seats and Survival says:

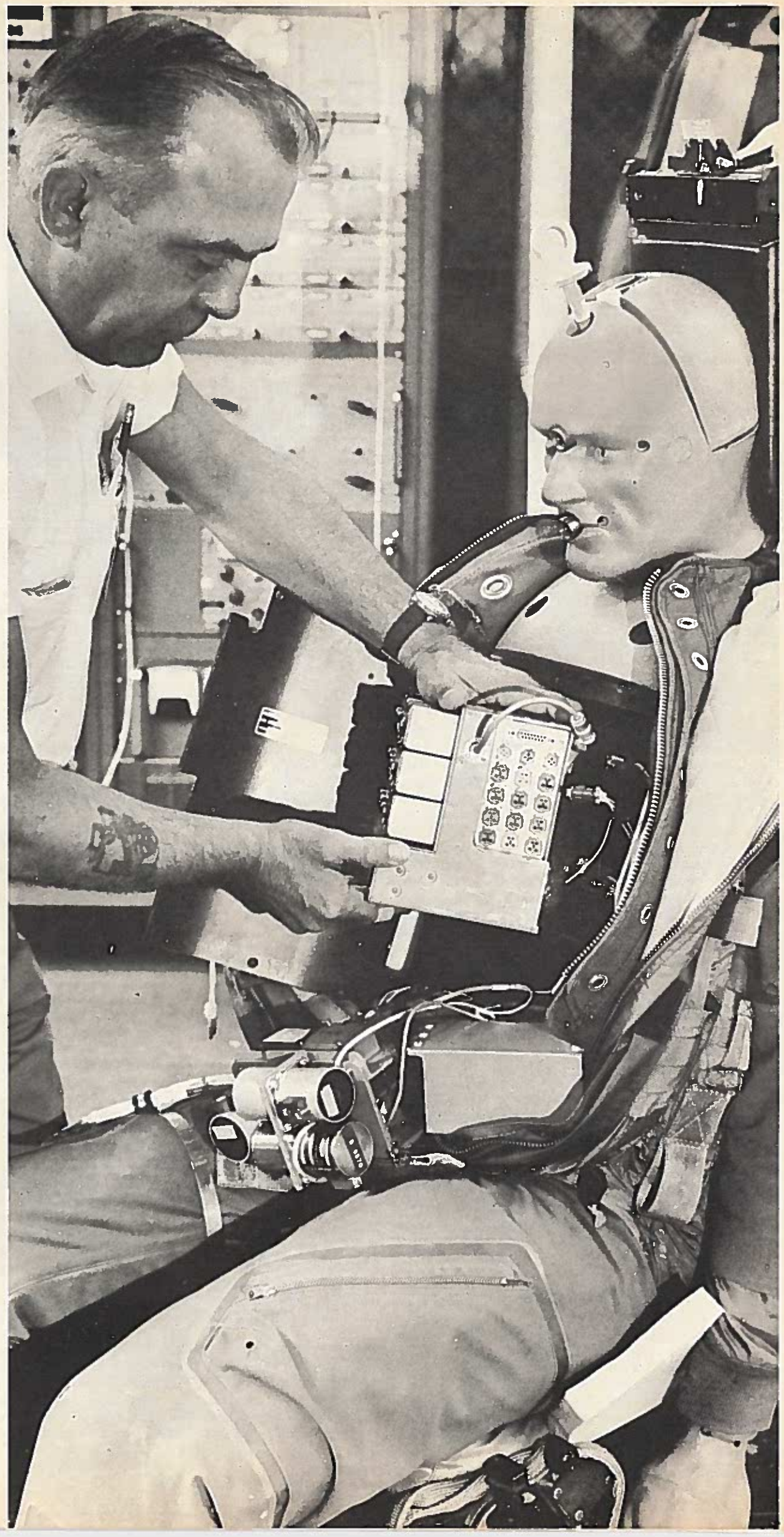
"The need for instrumented dummies arose in about 1955. The hazards of test flying modern aircraft made it clear that using men for some initial testing was out of the question. Some sort of life-like dummy had to be built—something that would accurately record conditions that prevail in flight."

The first simulations were primitive. Then came a chain of semi-realistic dummies. But every company had its own ideas on how to get accuracy from simulations, so there were no standards; readings from one company's tests often bore little or no relation to another company's readings. "Because of that," Aronne says, "we proposed to the Navy that there be certain standards in the aircraft industry for these test tools (dummies). Now, all simulation flight test data—whether Grumman's, Chance Vought's, Lockheed's, and so on—can be correlated. All of us are speaking the same language."

The "language" comes from 12 different channels of instrumentation. Each channel, or any in combination, provide near-perfect accuracy.

Sometimes only six or seven of the 12 channels available may be used. It all depends upon the kinds of data needed. Some of the channels built into the dummies include zero time (when test starts), catapult pressure, pressure on drogue parachutes, and readings of three accelerometers and three gyros. In short, it's a dynamic record of what would have happened had men been involved rather than dummies.

(Photos by Larry Van Wallendael)



# Meaney paces pin action with 654 in Classified

Maybe the Peenogees (and whatever does that mean?) are having a hard time climbing into the first division in the Grumman Classified loop, but that didn't stop veteran Ed Meaney from going on a tear of his own a couple of weeks ago. Ed clinched scoring honors in the session by forging a hefty 654 with games of 222 and 243—but despite the outstanding string, he finished well below Bob Dudonis's season high of 719. Ah well, there's still a long way to go. . . .In the next round, Bob Hoehn clipped together 209, 210, and 225 lines for a 644 total. Other highlights included Dudonis's 202-235-626, Frank Wassung's 235-611, Norm McDowell's 243-594, and Hank Burkhardt's 209-590.

John Betterino seems to stay near the top in every session—and was this time, too, with a 255-637 in the Black circuit. Steve Lawrow posted 600 with a 237 high, while Charles Gobbi finished with 226-595, Bob Specht closed at 592 after 203 and 200 games, and Len Maniscalco hit 221-590. . . . Tony Rivello was improving, he notched 170, 211, and 221 games, but the evening wound up so he had to settle for 602 in the Aerospace loop. Other high scores included Tony Missale's 211-601, Ed Lomot's 232-600, Dan Aquilino's 216-573, and Dick Dickerson's 219-570.

### Eyring hits 267

Sharing is not one of George Eyring's strong points. He had been tied with Paul Waisanen for the Red league's high game mark at 246, but a couple of weeks ago he went in front all by himself when he racked up a 267 while totaling 593. Joe Glasser finished two sticks back with 265 for 641, while Lou Brida made a run at the high-game record with a strong 263 in a 628 series. Other Red stars included John Strakosch, 200-213-612; Herm Holsten, 256-609; Charles Marcaletti, 201-220-599; and Hans Flader, 209-202-592. . . . Tom Wright flipped 208-582, and Sid Weihs collected 570 in the Trader circuit, with Al and Bill Stevens hitting high game of 226 in action at Oscar's in East Islip.

Nick Malandro was looking for one more big game. He had two, 245 and 242, in the round, and another strong effort would have put his series total nearly out of sight. It never came. He had to settle for 629, and two league records, as he led Classic league play.

## Russell 'shoe-in

Tom Russell won the horseshoe pitching title from Ken Kretschman in the Plant 34E Publications singles competition. The champ took the first two sets handily with scores of 22-11 and 21-14, but only after overcoming Kretschman's early leads. Kretschman bounced back in the third game of the best 3-out-of-5 series to overpower Russell 23-12. The fourth and final set looked like a Russell avalanche when he took a commanding 19-5 lead early in the game. Kretschman managed to close the gap considerably but was finally eased out of the crown in a 21-17 squeaker.

at Jericho Lanes. Mel Head's 227-600 and Bob MacLeod's 214-556 were other highlights. . . . Norma Landin and Maggie Gaynor head up the women's contingent on the "Good Friends" in the Patchogue Mixed loop. Maggie had held the women's high game mark of 202, but in the last session along came another lass and snapped that record with 203. Who? You guessed it: Norma. And with "Good Friends" like that, who needs enemies? Norma finished the night with 525 while Maggie checked in with 201-536. Gene Burgess led the men with 223-541, with Bob Menrisky's 209-525 next highest. Earlier, Ray Haas had a 239 high in a 558 string, and Burgess raised the men's series standard to 600 with help from 206.

### Masters' leader

Hey, here's that man again. Betterino. John's 828 in Masters play, on lines of 236, 202, 202, headed the four-game totals, with Bruce Yberg's 237-785, Jack Nielsen's 221-784, and Ray Zeller's 225-795 among the leaders. The following session, Bob Nilsen punched out 785. . . . Ernie Jenkins helped maintain his 188 average in Bethpage Nite Owl action with 216, while Ed Truglio put together a 211 and 210. Ralph Laurino had 214, Glenn Wells, 211, and George Stegman, 209. . . . In the Outpost league, Bill Gallagher's 228-213-612, Grover Hart's 226-603, and Bob Denien's 200-568 stood out.

The Apples may have a slight edge on the Hemps in the Rocket loop but don't blame it on P. (is that for Paul or Phil?) Havekotte. He forged a solid 625, a league record, on 203, 218, and 204. In the earlier session he established a game standard of 225 while rolling 576. Among the other bright lights were H. Solof, 218; D. Gensinger, 218; G. Katz, 218; T. (for Tom?) Reilly, 215-215-615; I. Mitzelman, 214-209-600. (And please, **please**, Mr. Secretary, don't keep us in suspense: supply us with first names, too). . . . Jody Haynes shared laurels with Sherm Martin in Gray action as he put together 255-590, while Martin used a 252 to reach 597.

### Ruff on spree

Joe Ruff is a member of the league-leading Tigers in the Monday Mixed league and he's taking it seriously. Joe pushed to a record 246 in a 613, and followed that up with 224-595. . . . And the Orphans, in third just three points back of the Tigers, can thank Ronda Hoffman for some strong support in recent sessions. Ronda put together a 202-534 a couple of weeks ago, then same back with a record 210 while finishing at 492. Other Mixed mixers were Clyde Schelp, 214-208-610 and 212-568; Bill Anckner, 212-561; Art Clemente, 204-560; Joe Guissari, 200-580; Sid Weihs, 202-203-566; Jean Maresca, 515; and Dot Buckley, 490.

In the Brown loop, P. Lipari clinched scoring honors with record game and series marks of 257-612 in a recent round, while trailing were W. Haines, 206-566, and H. Smith, 212-565. Earlier, Ray Zeller combined 222 and 206

**John Castle**
*Sets soccer mark*

to finish with 567. K. Johnson registered 219-552, J. Tarullo, 214-544; and W. Gaylor, 546.

Frank Bily rattled the sticks for 203, 215, 216 and a hefty 634 in the Outpost loop, as Joe Avanzato finished second in the scoring with 215-602.

## Coin, leather clubs offering activities

In case you're undecided on how to spend those long winter nights ahead, numismatic activities might help fill the bill. Numiswhat? Coin collecting, of course.

The Grumman Coin Club meets every Wednesday, starting at noon, in a conference room at Plant 25, according to club president Ken Hale. Buying, swapping, or just displaying takes up much of the session, but there are also discussions on new and old coins and collections from any of the 50 states or many foreign countries.

If that sounds interesting to you, why not call Ken on Ext. 3395. He'll fill you in on the particulars.

### Practical hobby

Another hobby that offers attraction to many is leathercraft. At Grumman, the Leathercraft Club meets the first and third Wednesday of the month at the Plant 28 auditorium, starting at 5 p.m. The next meeting is scheduled for November 25.

You say you don't know anything about leathercraft? Don't let that deter you—instructing new members in leathercraft is one of the purposes of the club, says Cy Dotz. Experienced leather workers are also kept informed of new ideas and techniques. Call Cy on Ext. 86828 or the GAA office, Ext. 2269, for more information.

# Castle stars in boot win

John Castle might well be eligible for the sports hall of fame at Grumman following his scoring spree in a 6-2 win over Mineola. John, an inside left forward, had to switch to center forward last Sunday. The change must have suited him perfectly since he proceeded to kick six goals in the victory in the Premier division of the L.I. Soccer Legue.

Grumman booters have scored "hat tricks" before—that's three goals in one game—but never, never before has a player on a Company team booted six goals! Egad, it boggles the mind, especially since this was the first victory of the season for the Premier team, and the first time it has scored more than one goal in a match.

John viewed the accomplishment rather modestly—typical British understatement, some would say — since he describes himself as being somewhat of an "average" player in his his native England.

In his spree, Castle tied the score at 1-1 against Mineola with his first goal, a solo dash about 15 minutes into the game. His second came after an assist by John Sureau. Following that, John hit the net twice more on solo sorties, and twice on assists by Bob Carlson and Noe Acetta.

### Repeat performance

Castle was at it again last week in a 4-1 triumph over Jamaica. John scored the first of his three goals on an assist by goalie Brian Scheu. In the second half, with the score tied, Castle made it 2-1 on an assist by Cyril Cockerill, then Allan Grillo put one into the nets, after a pass from Castle. John again found the cords to make it 4-1 following a pass by John Sureau.

The Reserve squad lost 3-0 to Huntington.

On Sunday, November 22, both Reserve and Premier teams play at Plant 3. Visitors are welcome. The Reserve team kicks off the double header at 12:30 against Lynbrook. At 2:30, the Premiers play East Meadow.

In earlier action, the Reserve team dropped a 7-0 engagement to Rocklyn and the Premiers fell before Merrick, 4-0, to open the season. In later contests, Lynbrook 3, Reserves 2; Jericho 4, Premiers 1; Forest Park 4, Reserves 1; Patchogue 1, Reserves 0; Hempstead 5, Premiers 1.

Castle, who's 30, is a design engineer working on the Tracked Air Cushion Research Vehicle program at Plant 36. He's been in this country since last January, and played the last part of the 1969 - 70 season with the Premiers.

Don't ask him to play cricket—that's his real game.

## Help needed

You're a drummer? You've got rhythm? Al Kordula is looking for you. "We're in need of drummers for our Grumman Employees Band," he says. Take it from there, men. Call Kordula, Band director, on Ext. 87259 or 84221.

# Still picnic time at Savannah . . .

Stately Georgia pines shielded more than 500 people from a bright sun at the fourth annual family outing held at Savannah last month. It was a beautiful day for a picnic—warm, dry, and clear—and the picnickers made good use of it.

The throng kept busy throughout the long day, with races, dancing, and even a karate exhibition among the highlights. And, of course, there was an enticing menu with some cold beer just in case there was a break in the activities.

Among those on hand with General Manager Al Lemlein to welcome Savannah's contingent were Vice President Corky Meyer and Vice President Tom Rozzi, who made the trip from Bethpage especially for the picnic.

And family outings seemed to be in vogue last month, 'cause out in California . . .

# . . . and Pt. Mugu, too

Perfect California weather heralded the start of the first annual Grumman picnic at Point Mugu a couple of weeks ago as Tony Benjes, F-14 Project manager, welcomed more than 550 Grummanites and their families to the event. An additional 50 people attached to the project from Hughes Aircraft, Teledyne, and Litton Industries were also at Steckel Park, which is nestled in the mountains near Santa Paula.

Kids screamed in delight when the hay ride was raided by "Indians," and then showed up in mass for the start of the children's games. One of the highlights proved to be the water balloon fight.

Adults spent the day renewing friendships or making new ones, enjoying the delicious steaks, and indulging in a sip of the foamy. For the more athletically inclined, there was softball, volley ball, horseshoes and a golf contest. The Point Mugu softball team took the challenge from all comers and came out on top with a 9-2 win.

By 5:30 p.m., at the end of a long day, a happy, tired bunch of people stuffed with hot dogs and steak began the trip home. It was a great picnic—and plans are already under way for next year.

# Caring is giving— support the United Fund

"Tell it like it is!"

How often have you heard that? And you know, it's not a bad idea at all. So, here goes—

We're in the midst of the sixth annual campaign of the United Fund of Long Island. The job is to raise $3 million in the course of the drive. That money will help people in 19 voluntary hospitals and 62 community service agencies. And you, a member of your family, a friend, or a neighbor may be the beneficiary. After all, any of the 2½ million people living in Nassau or Suffolk may need help. That's a lot of people.

What kinds of needs and what kinds of services? Take just a few: facilities for the care and education of retarded children are available from two agencies, the Association for the Help of Retarded Children and the Association for Retarded Children; the Suffolk Rehabilitation Center for the Physically Handicapped; the Long Island Hearing and Speech Society; Jewish Community Services; Catholic Charities; YMCAs and YM-YWHAs; Boy Scouts and Girl Scouts. UF dollars also help to pay for such critical facilities as emergency rooms at the volunteer hospitals.

Can you be sure that your donated money will go to reputable agencies? Yes, you can. Each hospital and service agency has been screened to make certain that these organizational requirements are met:

- Be incorporated in New York State and operate as a non-profit tax-exempt corporation, which makes gifts by donors deductible for Federal income tax purposes
- Operate in the fields of health, rehabilitation, hospital or character-building services
- Be a member of a planning council approved by the United Fund

In addition, there is a firm policy that **no** agency that is not on the UF solicitation list will receive money from the Fund.

### Other safeguards

There are other safeguards, too. For example, the UF is committed to the principle that "Unless there is a documented indicator of substantial need, verified by the appropriate planning council, the organization should not duplicate a service already provided by an existing organization, public or non-governmental."

For your security, the UF accounts are audited annually. It's a tight ship that sees to it that the job is done in the right way so that your contribution is meaningful.

But that's the way it's been run all along. And doing your bit to help your Long Island neighbor is easy. Those already in the program at Grumman are familiar with it: Contributions are made through a payroll deduction plan. You don't have to fiddle with the books, so to speak; the Company takes that burden off your shoulders. And since payroll deduction is the method, it's painless: You don't miss the money you don't see. But that's all negative, and when you spin it around the other way, what you're doing is contributing just once to agencies that otherwise might be knocking at your door 40 or 50 times in the course of a year. **That** is convenient with a capital C!

Convenience, though, isn't the primary reason for giving to the UF; it simply provides a smoother route to expressing concern and doing something about it. In a way, it's an intense appreciation of people that has its roots way, way back in the history of Man—the kind of spiritual conviction voiced by Terence more than 150 years before the birth of Christ, "I am a man, and whatever concerns humanity is of interest to me."

It adds up to caring—really caring.

So, if you're not in the Fund, get in; as an aid, you have received a card inviting you to join through payroll deduction. If you are in, window stickers will be sent to you to show you're participating. It's all so easy!

Oh, one other thing: When you sign up you'll get a ticket stub, and if that stub is one of the ones drawn, you may get in on a prize. The first 16 prizes will be for Grummanites who have pledged a full share. Any member of the Company who contributes to the Fund will be eligible for the remaining eight prizes—and that includes plants **off** Long Island.

### List of prizes

1. Magnavox 25-inch stereo color TV combination with one year service
2. G.E. 24-cubic-foot refrigerator with ice maker and ice crusher
3. Sylvania 25-inch color console TV with one year service
4. G.E. Americana range or Caloric gas range
5. G.E. 25-inch color console TV with one year service
6. RCA 23-inch color console TV with one year service
7. Westinghouse side-by-side refrigerator-freezer
8. Sylvania stereo console AM/FM
9. Magnavox 19-inch wood color TV with matching stand
10. Sylvania 18-inch portable color TV
11. Frigidaire Skinny-Mini combination Washer-Dryer
12. Sony AM/FM stereo component system
13. G.E. 18-cubic-foot frost-free refrigerator
14. Caloric gas range
15. G.E. 16-pound automatic washer
16. Magnavox stereo component system, AM-FM stereo amplifier, record changer, speakers
17. G.E. undercounter dishwasher
18. G.E. upright freezer
19. G.E. stereo component system
20. Whirlpool automatic washer
21. G.E. electric 30-inch range
22. G.E. Port-a-color TV
23. Polaroid camera outfit #360
24. G.E. 23-inch black & white console TV
25. G.E. 23-inch black & white table model TV on stand
26. Westinghouse automatic clothes dryer
27. G.E. portable dishwasher
28. 16-inch portable black & white TV with stand

**Helping hands.** Plucky little gal smiling as though the world's aglow with everything nice gets warm assistance in how to walk with crutches from this physical therapist at St. Charles Hospital, one of the many institutions covered by the United Fund. (Photo by Nat Scherer)

## Holiday note

An occasion for giving thanks: the four-day Thanksgiving weekend. "All plants will be closed on Thanksgiving Day, Thursday, November 26, 1970," says President Lew Evans' announcement. "In addition, Friday, November 27, is a holiday and all plants will be closed on that day. All personnel actively employed will be paid for these days."

Plane News would in the usual course of events be distributed on Friday, November 27, but because of the holidays, it will be distributed on Monday, November 30.

Have a happy.

## Space spinoffs

TV Station 21, WLIW in Garden City, is running a series of "Conversations in the Park" viedo-taped in Eisenhower Park last summer. Among some prominent citizens interviewed, including Robert Moses and Morton Gould, was Grumman's Howard Wright, assistant director of the Space Shuttle Program. He will be seen from 7 to 7:30 on Tuesday evening, December 1, and 8-8:30 the following evening. He'll be discussing space programs with special emphasis on "spinoff."